

<b>SURFACE MOUNT FAST SWITCHING DIODE</b>	<b>REVERSE VOLTAGE – 75 Volts FORWARD CURRENT – 0.15 Ampere</b>
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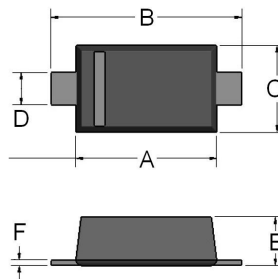
**FEATURES**

- Fast switching device ( $T_{rr} < 4.0 \text{ ns}$ )
- SOD-323F package
- Surface device type mounting
- General Purpose Diodes
- Green EMC
- Matte Tin(Sn) Lead Finish
- RoHS compliant
- Band Indicates Cathode

**MECHANICAL DATA**

- Polarity: Color band denotes cathode

**SOD-323F**



SOD-323F		
DIM.	MIN.	MAX.
A	1.60	1.80
B	2.30	2.70
C	1.15	1.35
D	0.25	0.40
E	0.80	1.00
F	0.05	0.25

All Dimensions in millimeter

**Maximum Ratings & Thermal Characteristics @  $T_A = 25^\circ\text{C}$  unless otherwise specified**

Characteristic	Symbol	1N4148WSF / 1N4448WSF	Units
Working Inverse Voltage	$W_{IV}$	75	V
Non-Repetitive Peak Forward Current	$I_{FM}$	300	mA
Peak Forward Surge Current (Pulse Width=1us)	$I_{FSM}$	2	A
Average Rectified Output Current	$I_O$	150	mA
Power Dissipation	$P_D$	200	mW
Operating Temperature Range	$T_J$	+150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ\text{C}$

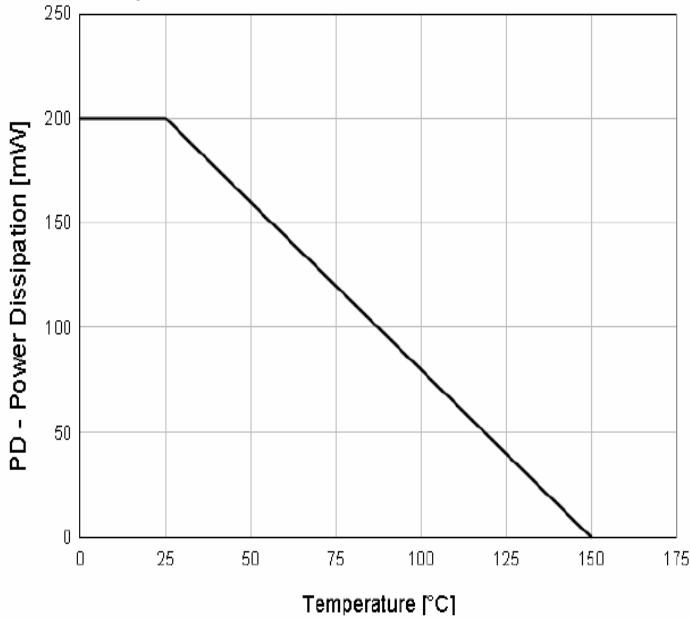
**Electrical Characteristics @  $T_A = 25^\circ\text{C}$  unless otherwise specified**

Characteristic	Test Condition	Symbol	1N4148WSF	1N4448WSF	Unit
Breakdown voltage	$I_R = 100\mu\text{A}$	BV	100		V
	$I_R = 5\mu\text{A}$		75		
Maximum Forward Voltage	$I_F = 5\text{mA}$	$V_F$	-	720	mV
	$I_F = 10\text{mA}$		1000	-	
	$I_F = 100\text{mA}$		-	1000	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$V_R = 75\text{V}$	$I_R$	5		uA
	$V_R = 20\text{V}$		25		
Typical Diode Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_D$	4		pF
Reverse Recovery time	$I_F = 10\text{mA}, I_R = 60\text{mA}, R_L = 100\Omega, I_{RR} = 1\text{mA}$	trr	4		ns

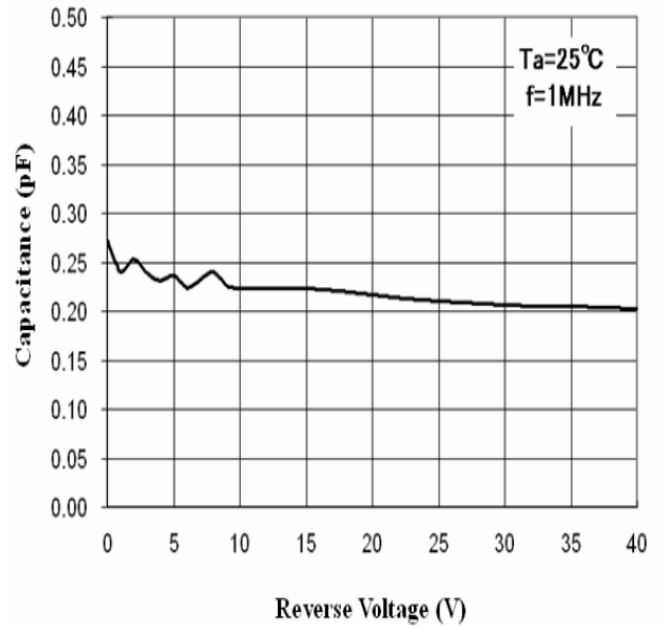
**1N4148WSF / 1N4448WSF**  
**RATING AND CHARACTERISTIC CURVES**



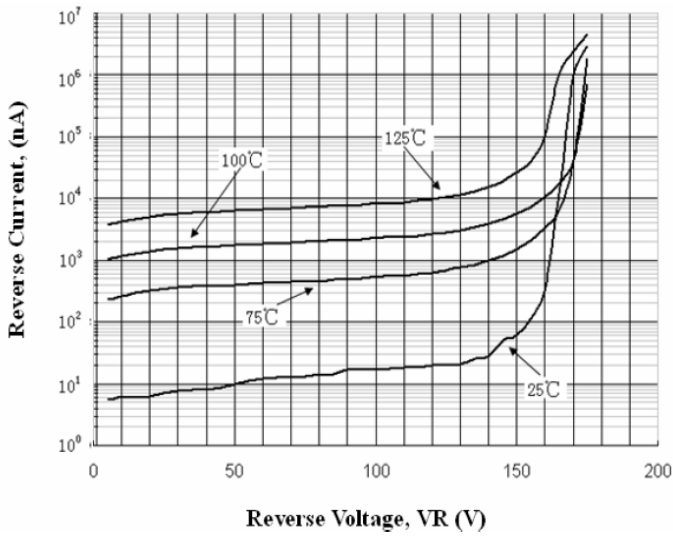
**Figure 1. Power Dissipation vs Ambient Temperature**  
 Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature



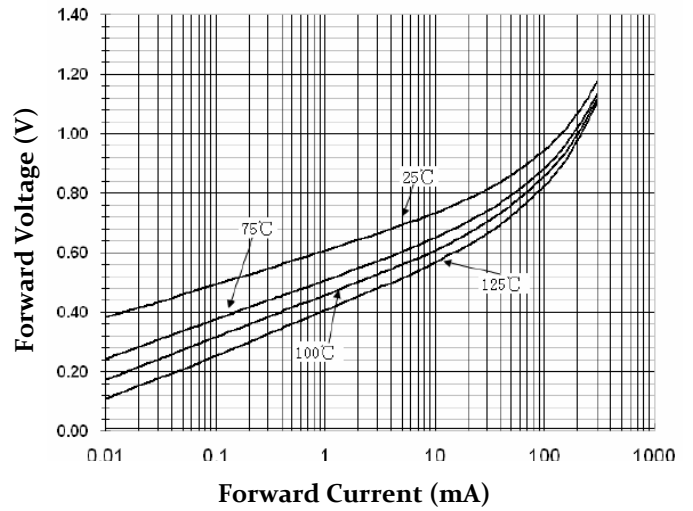
**Figure 2. Total Capacitance**



**Figure 3. Reverse Voltage vs Reverse Current**



**Figure 4. Forward Voltage vs Ambient Temperature**



**Device Marking:**

Device P/N	Marking code	Equivalent Circuit Diagram
1N4148WSF	S1	
1N4448WSF	S2	

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